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A²
PHP15631 and PHP 15632 comprises the 5' and the 3' end of the rhoGAP sequence, respectively. It is noted, however, that clones PHP15631 and PHP15632 contain common sequences at the regions where they overlap. One of skill in the art by sequencing the clones and aligning the overlap may obtain the entire sequence of the sunflower rhoGAP. These deposits will be maintained under the terms of the Budapest Treaty on the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure. These deposits were made merely as a convenience for those of skill in the art and are not an admission that a deposit is required under 35 U.S.C. §112.

Please amend page ~~81~~⁸² of the specification with the following:

LOX POLYNUCLEOTIDES AND RELATED COMPOSITIONS

ABSTRACT OF THE DISCLOSURE

A³
Methods and compositions for modulating development and defense response are provided. Nucleotide sequences encoding a LOX protein are provided. Nucleotide sequences comprising the LOX promoter are also provided. The sequences can be used in expression cassettes for modulating development, developmental pathways, and the plant defense response. Transformed plants, plant cells, tissues, and seed are also provided.

In the Claims

Please cancel claims 1, 5-24 without prejudice or disclaimer.

Please amend claim the following claims:

A⁴ Pub B1
2. (Amended) An isolated nucleic acid molecule comprising a nucleotide sequence having at least 80% sequence identity to the sequence set forth in SEQ ID NO: 3, wherein said sequence encodes a polypeptide having LOX-like activity.

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a4
3. (Amended) A DNA construct comprising the nucleotide sequence of claim 2, wherein said nucleotide sequence is operably linked to a promoter that drives expression in a host cell.

4. (Amended) A cell having stably incorporated into its genome at least one DNA construct of claim 3.

Please add the following claims:

Q34
25. (New) A vector comprising the nucleic acid molecule of claim 2.

26. (New) A cell having stably incorporated into its genome the nucleic acid molecule of claim 2.

Q5
27. (New) The isolated nucleic acid molecule of claim 2, wherein said nucleic acid molecule is selected from the group consisting of:
Sub 2
(a) a nucleic acid molecule comprising a nucleotide sequence set forth in SEQ ID NO: 3;
(b) a nucleic acid molecule comprising a nucleotide sequence encoding an amino acid sequence set forth in SEQ ID NO: 4; and,
(c) a nucleic acid molecule comprising an antisense nucleotide sequence of ~~SEQ ID NO: 3.~~

28. (New) A DNA construct comprising the nucleotide sequence of claim 27, wherein said nucleotide sequence is operably linked to a promoter that drives expression in a host cell.

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29. (New) A cell having stably incorporated into its genome at least one DNA construct of claim 28.

30. (New) A vector comprising the nucleic acid molecule of claim 27.

31. (New) A cell having stably incorporated into its genome the nucleic acid molecule of claim 27.

Q5 32. (New) The isolated nucleic acid molecule of claim 2, wherein said nucleic acid molecule comprises the cDNA insert of the plasmid deposited as Accession No. PTA-287.

33. (New) An isolated DNA construct comprising the nucleic acid molecule of claim 32, wherein said nucleic acid molecule is operably linked to a promoter that drives expression in a host cell.

34. (New) A cell having stably incorporated into its genome at least one DNA construct of claim 33.

35. (New) A vector comprising the nucleic acid molecule of claim 32.

36. (New) A cell having stably incorporated into its genome the nucleic acid molecule of claim 32.

37. (New) An isolated nucleic acid molecule comprising a nucleotide sequence that hybridizes under stringent conditions to the complement SEQ ID NO:3, wherein said sequence encodes a polypeptide having LOX-like activity and said stringent conditions comprise hybridization in 50% formamide, 1 M NaCl, and 1% SDS at 37°C and a wash in 0.1x SSC at 60°C to 65°C.

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38. (New) A DNA construct comprising the nucleotide sequence of claim 37, wherein said nucleotide sequence is operably linked to a promoter that drives expression in a host cell.

39. (New) A cell having stably incorporated into its genome at least one DNA construct of claim 38.

Q5 40. (New) A vector comprising the nucleic acid molecule of claim 37.

41. (New) A cell having stably incorporated into its genome the nucleic acid molecule of claim 37.

~~Sub 42. (New) An isolated nucleic acid molecule comprising a nucleotide having at least 50 contiguous nucleotides of SEQ ID NO:3, wherein said sequence encodes a polypeptide having LOX-like activity.~~

43. (New) An isolated DNA construct comprising the nucleotide sequence of claim 42, wherein said nucleotide sequence is operably linked to a promoter that drives expression in a host cell.

44. (New) A cell having stably incorporated into its genome at least one DNA construct of claim 43.

45. (New) A vector comprising the nucleic acid molecule of claim 42.

46. (New) A cell having stably incorporated into its genome the nucleic acid molecule of claim 42.